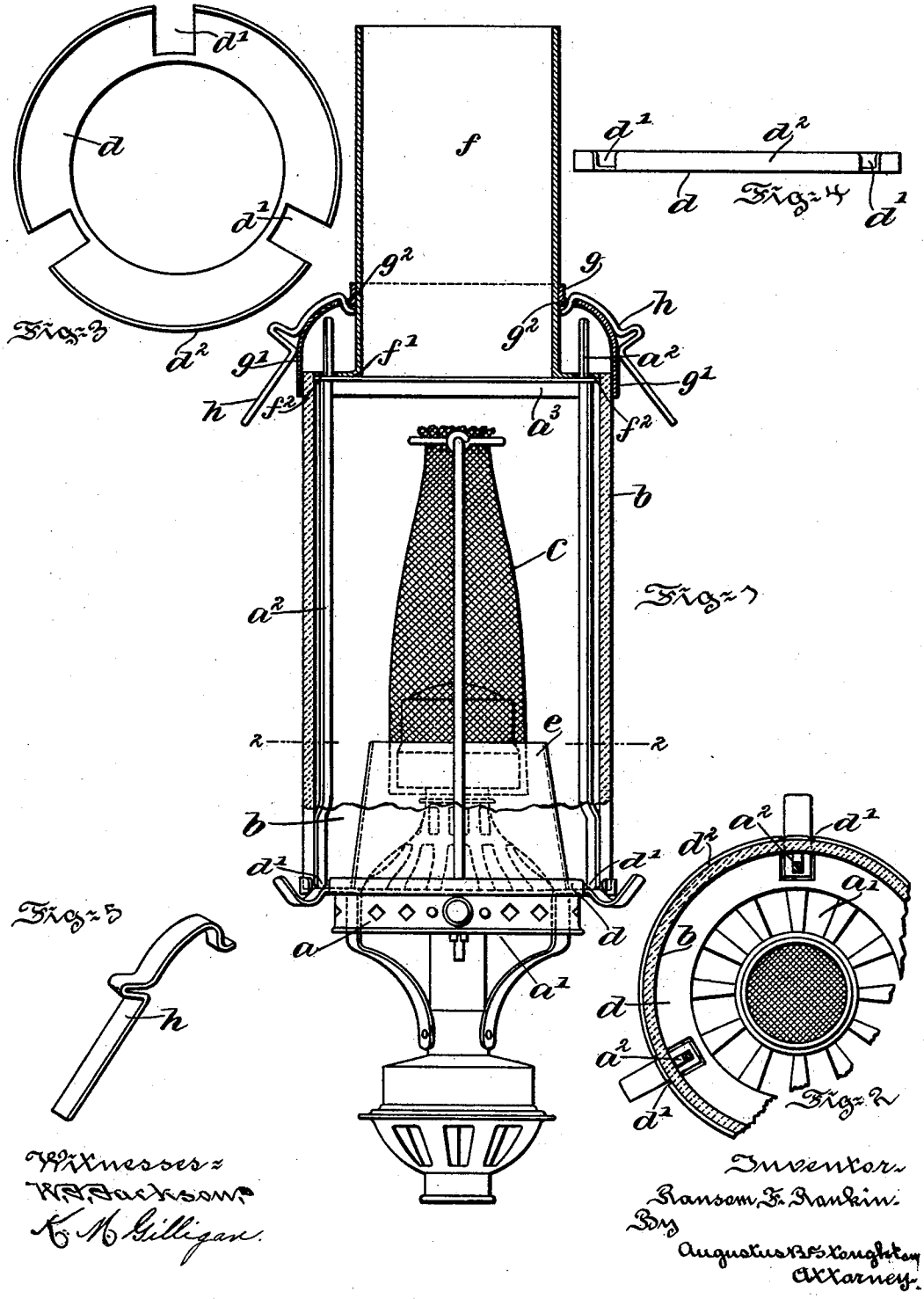
(No Model.)

R. F. RANKIN.

WELSBACH OR OTHER INCANDESCENT LIGHT.

No. 600,090. Patented Mar. 1, 1898.



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UNITED STATES PATENT OFFICE.

RANSOM F. RANKIN, OF PHILADELPHIA, PENNSYLVANIA.

WELSBACH OR OTHER INCANDESCENT LIGHT.

SPECIFICATION forming part of Letters Patent No. 600,090, dated March 1, 1898.

Application filed December 12, 1896. Serial No. 615,444. (No model.)

To all whom it may concern:

Be it known that I, RANSOM F. RANKIN, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Welsbach or other Incandescent Gas-Lights, of which the following is a specification.

The object of my invention is to provide means for applying a large chimney or globe to the exterior of an ordinary Welsbach light or similar fixture in such manner that the advantages of a large chimney are attained, while at the same time a good illuminating effect is provided.

The nature, characteristic features, and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part thereof, and in which—

Figure 1 is an elevational view, partly in section, illustrating a fixture containing or embodying features of my invention. Fig. 2 is a sectional view taken on the line 2 2 of Fig. 1, illustrating the lower portion of the device with certain parts removed. Figs. 3 and 4 are respectively plan and side views of an obturator, hereinafter described; and Fig. 5 is a perspective view of a detachable shade-holding clip.

In the drawings, a is a well-known gallery, of which the type may be varied and which is provided with a centrally-disposed air-inlet a' and with rods or standards a^2, that usually carry at their upper ends a ring a^3. Such a gallery is primarily intended to carry a chimney within the rods a^2. However, a chimney, as b, may be placed outside of these rods, as shown. Such a chimney is of comparatively large diameter and is therefore comparatively far away from the mantle c, so that if the latter should break it is not likely to contact with the chimney, it being understood that contact of the mantle with the chimney gives rise to breaking of the latter. A comparatively large chimney applied outside of the rods would ordinarily give rise to a large annular opening arranged around the inner wall of the chimney and at the base of the gallery, it being understood that the gallery is open at the bottom for the admission of air. An annular opening near the inner wall of a large chimney would permit of the introduction of too much air along its inner walls, which excess of air would tend to cool, and consequently dim, the mantle. To obviate this, I provide an obturator d, which comprises a ring radially notched at its periphery, as shown at d', for the accommodation of the rods a^2 and flanged, as at d^2, to hold the chimney b, which fits over or outside of the rods a^2. This obturator d bridges and closes the space that would otherwise be left open, as shown in Fig. 2. This is important, because the indraft of air at the bottom of the gallery is confined to the same area as it is when a small chimney is placed inside of the rods, so that the mantle c is approximately as brilliant with the large chimney as it would be with the small one.

e is a shield of the form of the frustum of a cone and preferably made of ground mica. This shield rests upon the obturator d and serves not only to hide the base of the mantle, but also to concentrate the draft upon it. f is a top or cap flanged, as at f', and perforated, as at f^2. The bore of this top or cap corresponds in area with the opening in the center of the obturator. The flanged portion of this cap rests upon the ring a^3, and the upper portions of the rods a^2 pass through the openings f^2, so that the top, while detachable, is nevertheless quite firmly held to place and prevents the escape of hot products at the edges and insures their escape through the center of the top or cap.

g is a collar movably mounted on the cap f and provided with a skirt g', that falls over the top of the chimney b and over the upper ends of the rods a^2, thus holding the chimney and imparting a neat appearance to the device. The skirt g' is provided with perforations or sockets g^2, with which shade-holding clips h may be caused to engage when desired.

From the foregoing description it is obvious that parts constructed according to my invention are applicable to such types of burners as are in wide and universal use. The obturator may be held in somewhat vertical po-

sition and then turned gradually over the top of the mantle into horizontal position, whereupon it may be readily lowered into the position shown in Figs. 1 and 2, so as to bring the air-inlet to proper size.

When applied to an ordinary fixture or light, the parts of my invention afford the advantages incident to the use of a comparatively large chimney and at the same time permit the ingress of only the appropriate quantity of air at the base of the gallery and cause it to ascend close to the mantle.

It will be obvious to those skilled in the art to which my invention appertains that modifications may be made in details without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set forth, and illustrated in the accompanying drawings; but,

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination a ring-like gallery having an open center and provided with rods or standards, a chimney surrounding said rods or standards, and an obturator peripherally notched for the accommodation of the rods and interposed between the chimney and gallery, substantially as described.

2. A detachable obturator for lights of the type described which comprises a ring peripherally flanged for the reception of a chimney-base and radially notched at its periphery for the accommodation of rods located inside of the chimney, substantially as described.

3. In combination, a gallery provided with rods carrying a ring, and a top or cap of less diameter than the gallery and provided with an outwardly-extending flange adapted to rest on said ring, said flange being perforated for the passage of the rods, whereby the escape of products of combustion around the top or cap is prevented, substantially as described.

4. In combination a gallery provided with rods carrying a ring, a chimney inclosing said rods, a top or cap of less diameter than the chimney and provided with an outwardly-extending perforated flange adapted to said ring and rods, and a skirt mounted on said top or cap and adapted to fall over the chimney, substantially as described.

5. In combination a ring-like gallery having an open center and provided with rods or standards, a chimney surrounding said rods or standards, an obturator peripherally notched for the accommodation of the rods and interposed between the chimney and gallery, and a shield, as *e*, mounted on the obturator, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two witnesses.

RANSOM F. RANKIN.

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